

# City Cemeteries Phase 1 Study

## City Council Presentation

2/20/14



Beechwood Cemetery



Maplewood Cemetery



GENERAL SERVICES  
101 CITY HALL PLAZA  
DURHAM, NC 27701  
2011 FAY STREET  
DURHAM, NC 27704  
P 919.560.4197



# Introduction

## Status of CJT Final Phase 1 Planning Study

- Coulter Jewell Thames (CJT) and subconsultants have spent many months investigating and documenting conditions in the cemeteries
- Phase I Study is now complete

## Executive Summary and Review of Findings

Problems at each of the two cemeteries are similar:

- Failing stormwater systems and roads
- Buildings in need of upgrades
- Lack of adequate storage/maintenance facilities
- General physical experience needs improvement



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# Background

## Project Instigation

- CJT led investigations and analysis of existing conditions and needs at the two cemeteries.

## Status of CJT Final Phase 1 Planning Study

- 2013 Phase 1 Planning Study completed in February 2014.

The study focuses on:

- Investigation and analysis of facility and site issues
- Prioritization of recommended improvements
- Concept plans
- Cost estimates

## Team

- Landscape architects
- Architects
- Civil and structural engineers
- Hazardous material inspector
- Underground pipe camera crews



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**Maplewood  
Cemetery  
c.1920**

**Maplewood  
Cemetery  
2013**





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# Methodology

## Investigation and Analysis

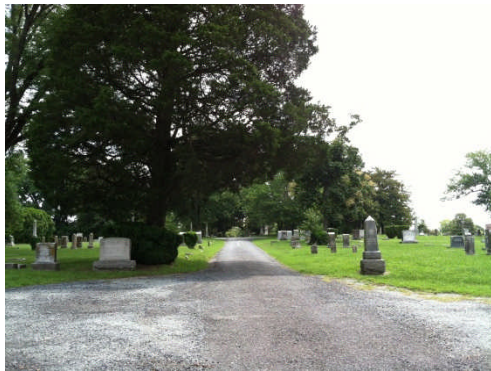
- Extensive investigation phase
- Deficiency lists compiled
- Recommendations for solutions
- Priority ranking for repair, replacement, and/or improvement

## Cost Estimates

- A recommended scope of work for each improvement
- Cost estimate assigned to each item
- Cost estimates based on 2013 construction estimates
- Includes contractor mobilization, general conditions



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# Findings

## Basic Numbers

- Cemeteries have been established and under the care of the City of Durham since 1872 (Maplewood) and 1924 (Beechwood)
- Land area for the two cemeteries totals 143.5 acres, 100 acres are active
- 5.5 miles of driveways/roads within the two facilities
- Responsibility for road and storm infrastructure maintenance has fallen into a gray area
- Buildings are over 50 years old
- On average there are 340 burials a year



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# Prioritization Methodology

Each recommended improvement was assigned a priority ranking based on the following:

## **1 – Public Safety/Code Compliance/ADA Compliance**

Ensures public safety and compliance with codes

## **2 – Deferred Maintenance/Aging Systems**

Improvements to systems and equipment in danger of failure that could impact facility operations

## **3 – Building and System Upgrades to Improve Operations**

Work that would improve facility operations, energy efficiency, and effectiveness

## **4 – Exterior and Interior Refurbishment**

General aesthetic improvements

## **5 – Functional Changes**

Changes in how the facility is used



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# Priority 1 and 2 Recommendations

## Beechwood Cemetery

- Repair/replace failing roadways
- Repair/replace failing storm drain systems
- Provide a central covered pavilion for non-graveside services
- Contain soil storage and implement erosion control protocol
- Accessibility upgrades
- Improve safety of ingress and egress





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# Priority 1 and 2 Recommendations

## Maplewood Cemetery

- Repair/replace failing roadways
- Repair eroded burial areas
- Repair/replace failing storm drainage systems
- Repair/replace failing retaining walls
- Demolish condemned building
- Repair remaining buildings
- Contain soil storage and implement erosion control protocol
- Repair/replace damaged concrete walkways
- Accessibility upgrades
- Improve safety of ingress and egress
- Improve after hours security





# Priority 3, 4, and 5 Recommendations

## Beechwood Cemetery

- Add parking at Office
- Add trash and soil storage facility
- Screen operations facilities from the public parts of the cemetery
- Improve signage within cemetery
- Improve entry signage and entry experience
- Improve the visitor experience- add seating, shade, and water
- Add perimeter landscape screening
- Add columbarium space

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# Priority 3, 4, and 5 Recommendations

## Maplewood Cemetery

- Add parking at Office
- Renovate the office for accessibility compliance
- Add maintenance and repair building, and outdoor storage
- Separate and screen operations facilities from the public parts of the cemetery
- Site drainage improvements
- Improve entry signage and entry experience
- Improve the visitor experience - add seating, shade, and water
- Provide pavilion for non-graveside services
- Add columbarium space

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# Beechwood Cemetery Cost Estimate

Priority Ranking	Cost Estimate
1. Public Safety/Code Compliance	\$ 338,950
2. Deferred Maintenance	\$ 305,000
3. Building System Upgrades	\$ 125,000
4. Refurbishment/aesthetic Improvements	\$ 70,000
5. Functional Changes	<u>\$ 93,000</u>
<b>Total</b>	<b>\$ 931,950</b>



# Maplewood Cemetery Cost Estimate

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Priority Ranking	Cost Estimate
1.Public Safety/Code Compliance	\$ 1,416,000
2. Deferred Maintenance	\$ 2,000,000
3. Building System Upgrades	\$ 358,500
4. Refurbishment/aesthetic Improvements	\$ 492,000
5. Functional Changes	<u>\$ 525,000</u>
<b>Total</b>	<b>\$ 4,791,500</b>

# Recommendations

## Identify Funding Source for Priority 1 Items

- Initiate design and construction for Priority 1 projects – both cemeteries
- Initiate design and construction of security gates at Maplewood

## Budget and Plan for Priority 2-5 Repairs

- Multi-year plan to deal with Priority 2-5 repairs/upgrades and to spread the cost over multiple years

## Initiate Ongoing Maintenance and Preventative Protocols

- Establish maintenance / preventative maintenance / staffing / operations protocols and operating budgets to address maintenance needs

